

**What is claimed is:**

1. A verification method for assuring security of a card encryption code in an IC card, wherein the user inserts an IC card into a reader and then a terminal verification process and an IC card verification process are performed, comprising the steps of:

a. providing a gate;

b. interrupting the data transformation between the keyboard and the computer by a reader microcontroller unit (Reader MCU) through the gate;

c. displaying an message to inform the user to input card encryption code;

d. receiving a card encryption code from the user through a keyboard; and

e. transferring the card encryption code data to the reader microcontroller unit by the keyboard microcontroller unit(K/B MCU).

2. The verification method for assuring security of card encryption code in an IC card as claimed in claim 1, further comprising the steps of:

f. the reader microcontroller unit determining whether a number of the card encryption code is correct; if no, the process returning to step c; if yes, performing the following step;

g. transferring the card encryption code data to the IC card by the reader microcontroller unit;

h. the IC card determining whether the card encryption code is correct; if no, the process returning to step b; if yes, the verification of the

card encryption code is complete.

3. The verification method for assuring security of card encryption code in an IC card as claimed in claim 2, further comprising the steps of:

- i. the reader microcontroller unit causing the data between the keyboard and the computer to be transferred normally by the gate; and
- j. the computer providing services under authority to the user.

4. The verification method for assuring security of card encryption code in an IC card as claimed in claim 3, wherein the displayed message of the reader microcontroller unit is that the message is displayed on a liquid crystal display.

5. The verification method for assuring security of card encryption code in an IC card as claimed in claim 3, wherein the computer is a personal computer.

6. A verification method for assuring security of card encryption code in an IC card, wherein the user inserts an IC card into a reader and then a terminal verification process and an IC card verification process are performed, comprising the steps of:

- a. interrupting data transformation between a keyboard and a computer by a keyboard reader microcontroller unit(K/B Reader MCU);
- b. displaying an message to inform the user to input card encryption code;
- c. receiving a card encryption code from the user through a keyboard; and
- d. the keyboard reader microcontroller unit receiving the card

encryption code.

7. The verification method for assuring security of card encryption code in an IC card as claimed in claim 6, further comprising the steps of:

e. the keyboard reader microcontroller unit determining whether the

5 number of the card encryption code is correct; if no, the process returning to step b; if yes, performing the following step;

f. transferring the card encryption code data to the IC card by the reader microcontroller unit; and

10 g. the IC card determining whether the card encryption code is correct; if no, the process returning to step a; if yes, the verification of the card encryption code is complete.

8. The verification method for assuring security of card encryption code in an IC card as claimed in claim 7, further comprising the steps of:

15 h. causing the data between the keyboard and the computer to be transferred normally by the keyboard reader microcontroller unit;

i. the computer providing services under authority to the user.

9. The verification method for assuring security of card encryption code in an IC card as claimed in claim 8, wherein the displayed message of the keyboard reader microcontroller unit is that the message is displayed on  
20 a liquid crystal display.

10. The verification method for assuring security of card encryption code in an IC card as claimed in claim 8, wherein the computer is a personal computer.

25 11. A verification system for assuring security of card encryption code in an IC card, comprising:

a gate for controlling data transformation between a keyboard and a computer;

a computer connected to the gate, after the verification of card encryption code, the computer providing services under authority;

5 a reader connected to the gate and a verification device; the reader including at least a reader microcontroller unit and a slot;

a keyboard connected to the gate and including at least one keyboard microcontroller, and

10 a verification device connected to the reader and for performing the terminal verification process and the IC card verification process;

wherein the user inserts the IC card into the reader; the reader microcontroller unit actuates the verification device to performs the terminal verification process and the IC card verification process; then the reader microcontroller unit interrupts the transformation of data

15 between the keyboard and the computer by the gate; the card encryption code data inputted from the keyboard by the user is encoded by the keyboard microcontroller unit and then is transferred to the reader microcontroller unit; the reader microcontroller unit transfers the card encryption code data to the IC card for verification so as to prevent the

20 card encryption code entering into the computer.

12. The verification system for assuring security of card encryption code in an IC card as claimed in claim 11, wherein the reader has a liquid crystal display; as the user inputs the card encryption code, the liquid crystal display is in a display condition for informing the user.

25 13. The verification system for assuring security of card encryption code

in an IC card as claimed in claim 11, wherein the interfaces between all the elements are based on general used protocols, such as RS232, USB, PS/2, or parallel ports.

14. The verification system for assuring security of card encryption code in an IC card as claimed in claim 13, wherein the computer is a personal computer.

15. A verification system for assuring security of card encryption code in an IC card, comprising:

a computer, after the verification of card encryption code, the computer providing services under authority;

a reader connected to the computer, a keyboard and a verification device; the reader including at least a keyboard reader microcontroller unit and a slot;

a keyboard connected to the reader; and

a verification device connected to the reader and for performing the terminal verification process and the IC card verification process;

wherein user inserted the IC card into the reader; the keyboard reader microcontroller unit actuates the verification device to perform the terminal verification process and the IC card verification process; then the keyboard reader microcontroller unit interrupts the transformation of data between the keyboard and the computer; the card encryption code data inputted from the keyboard by the user is transferred directly to the IC card by keyboard reader microcontroller unit for verification so as to prevent the card encryption code from entering into the computer.

16. The verification system for assuring security of card encryption code in an IC card as claimed in claim 15, wherein the reader has a liquid crystal display; as the user inputs the card encryption code, the liquid crystal display is in a display condition for informing the user.

5 17. The verification system for assuring security of card encryption code in an IC card as claimed in claim 15, wherein the interfaces between all the elements are according to general used protocols, such as RS232, USB, PS/2, or parallel ports.

10 18. The verification system for assuring security of card encryption code in an IC card as claimed in claim 17, wherein the computer is a personal computer.